

Matter and the Atom Review Guide: Pre -AP

Complete the following using your notes and old labs.

1. What are the various classifications of matter?
 - Give a brief definition and example of each.
2. What did you do in the “Purification of a Homogeneous Mixture” lab?
 - Be specific regarding techniques and methods used for purification/ separation.
 - Why were these techniques ordered the way they were?
3. Understand the lineage of the discovery of the atom, specifically how the various scientists and their experiments contributed to our correct understanding of the modern nuclear atom.
4. Which of the various scientists’ theories are still considered “true”?

The Electron:

5. Explain what a cathode ray tube is (be specific).
 - What experiments with cathode ray tubes lead to the identification of an electron?
6. How was the charge of an electron deduced? Know the experiment and be able to describe it.
7. What was the gold foil experiment we talked about in class? Be *specific* in describing the set up and the outcomes of the experiment.

	Electron	Proton	Neutron
Abbreviation			
Relative Charge			
Relative mass compare to a proton			
Location in and atom			
Scientist who help with discovery and their experiments			

8. What is an isotope? Give at least two examples?

9. Give the following nuclear/ isotope symbols for the elements listed.

Magnesium -25

Magnesium -26

Potassium-33

Iridium- 188

10. How many electrons do the following atoms have?

Al

Ar

Ba

O

F⁻¹

11. Why is the mass on the periodic table not a whole number?

12. What is the difference between intensive and extensive properties?

13. What is a physical change? Give an example. What is a chemical change? Give an example.